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Accelerate Network Operations Efficiency With AIOps

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Executive Summary

For organizations to succeed in their digital transformation, network teams need to make sure that users have a quality experience using any application from anywhere. Fortinet simplifies network operations with comprehensive monitoring and automation that takes advantage of years of experience building artificial intelligence (AI) and machine learning (ML) models that are used by thousands of enterprises globally. No matter how large or small the network operations team may be, challenges arise from complexity related to disjointed consoles, slow responses, and manual operations. Fortinet AIOps Network Operations can help with all three of these challenges.

IDC predicts that by 2023 more than 50% of new IT infrastructure deployments will be at the edge, creating new network environments that will need to be managed and secured.[1]

According to Gartner, by 2024, 50% of network operations teams will be required to rearchitect their network monitoring stack, due to the impact of hybrid networking, which will be a significant increase from 20% in 2019.[2] And by 2023, the use of NetOps 2.0 principles will grow by 40%, and those embracing these principles will reduce their application delivery times by 25%.[3]

Introduction

Many network operations teams are going through digital transformation projects that are driven by hybrid work environments and the need for digital experience visibility and control that spans from users to applications. Network teams face three key operational challenges and Fortinet can help proactively address each of them with AIOps Network Operations. It improves visibility, reduces mean time to incident (MTTI) detection, and increases incident response efficiency.

Challenge 1: Disjointed Consoles

Enterprises with distributed edges often deploy multiple point solutions. For example, they might have one solution for wireless in each location, another solution for switching, and another one for network access control. Having solutions from different vendors is challenging especially in manufacturing environments because operators have to use multiple consoles to operate the networks. The visibility across these disparate consoles is not integrated, so operators can't see a complete picture of what is happening on the network.

Solution: Observe

Fortinet solutions provide coverage across local-area network (LAN), wide-area network (WAN), and cloud, and with AIOps Network Operations, you can understand the performance and security anomalies all the way from user to application access. Simplifying monitoring across wireless, switch, firewall, software-defined WAN (SD-WAN), secure access service edge (SASE) into one console makes it easier for operations staff to ensure users have a good experience no matter where they may be connecting on the network.

Challenge 2: Slow Response

Performing root cause analyses (RCA) to track down user experience issues in a multilayered, distributed, and complex network is not a trivial exercise. It can take time to resolve issues.

Solution: Correlate

Fortinet AIOps Network Operations analyzes the dependence of device, LAN, WAN, and cloud events. At the same time, it incorporates policies to identify the root causes of end-user performance issues. Teams can more easily cut through the noisy events and find the issues that are affecting the business.

Challenge 3: Manual Operations

Spending time performing manual operations limits an operator’s ability to predict and remediate user experience issues.

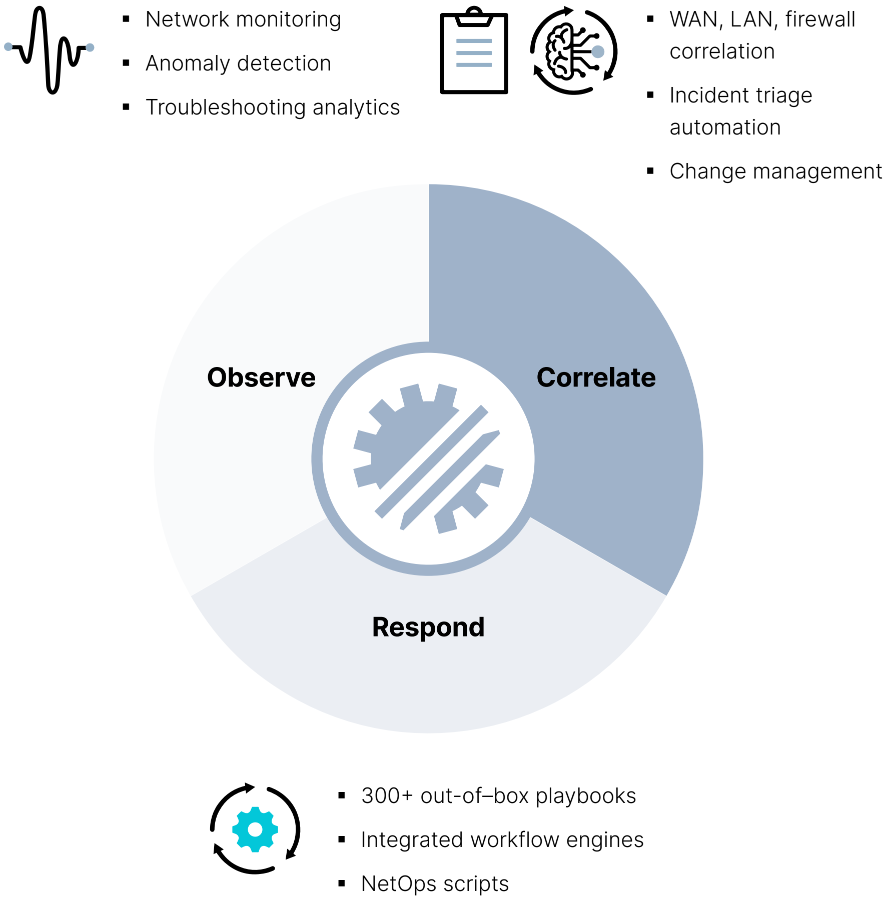
Solution: Rapidly Respond and Improve Efficiency

By integrating security orchestration, automation, and response (SOAR) into network operations, organizations can unlock enterprise network automation both proactively and through rules that use AI/ML and automation to remediate issues before they arise.

Simplify Operations With AIOps Network Operations

Fortinet AIOps Network Operations provides proactive visibility and control for heterogeneous and distributed networks. Designed for enterprises and service providers, it offers:

- **Hybrid-IT network visibility.** Improve visibility with a unified console for measuring digital experience key performance indicators across your enterprise network, instead of going to multiple consoles and stitching the information together.
- **User experience performance RCA.** Improve the MTTI a root cause for an incident when there is a user experience issue on the network, whether it is attributed to LAN, WAN, device, or an application in the end-to-end access path.
- **AI-powered network incident response.** Improve the mean time to resolve (MTTR) issues with intelligent and proactive response actions for network operations teams with self-healing capabilities across all of the distributed edges of the network.



- Network monitoring
- Anomaly detection
- Troubleshooting analytics

- WAN, LAN, firewall correlation
- Incident triage automation
- Change management

- 300+ out-of–box playbooks
- Integrated workflow engines
- NetOps scripts

Figure 1: AIOps network operations.

[1] Frank Gens, et al., "Worldwide IT Industry 2020 Predictions," IDC FutureScape, October 2019.

[2] Josh Chessman, "Market Guide for Network Performance Monitoring and Diagnostics," Gartner, March 5, 2020.

[3] Josh Chessman, et al., "NetOps 2.0: Embrace Network Automation and Analytics to Win in the Era of ContinuousNext," Gartner, October 9, 2019.

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